

AMENDMENTS TO THE CLAIMS

Listing of the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

~~(E0001)~~ 1. (Currently Amended) An oxidant distribution system for a fuel cell assembly comprising:

a fuel cell having at least one oxidant inlet and at least one oxidant outlet;

a housing surrounding said fuel cell; and

an insulation layer interposed between said housing and said fuel cell, said insulation layer defining at least a first cavity adjacent said at least one oxidant inlet, wherein said insulation layer is an oxidant distributor for channeling oxidant flow to said at least one oxidant inlet of said fuel cell.

~~(E0002)~~ 2. (Currently Amended) An oxidant distribution system in accordance with claim 1, wherein said system further comprises an oxidant supply feed in flow communication with said first cavity.

~~(E0003)~~ 3. (Currently Amended) An oxidant distribution system in accordance with claim 2, wherein said first cavity is shaped such that a first portion of said first cavity adjacent said oxidant supply feed substantially mates with said supply feed and a second portion of said first cavity adjacent said oxidant inlet substantially mates with said oxidant inlet.

~~(E0004)~~ 4. (Currently Amended) An oxidant distribution system in accordance with claim 3, wherein the cross-sectional size of said second portion is greater than the cross-sectional size of said first portion thereby creating a diffuser to distribute supplied oxidant more uniformly to said oxidant inlet of said fuel cell.

~~(C0005)~~ 5. (Currently Amended) An oxidant distribution system in accordance with claim 1, wherein an internal surface of said first cavity is roughened to enhance turbulent flow therethrough.

~~(C0006)~~ 6. (Currently Amended) An oxidant distribution system in accordance with claim 1, wherein said insulation layer comprises rigid refractory material.

~~(C0007)~~ 7. (Currently Amended) An oxidant distribution system in accordance with claim 6, wherein said rigid refractory material comprises a ceramic.

~~(C0008)~~ 8. (Currently Amended) An oxidant distribution system in accordance with claim 1, further comprising a second cavity defined by said insulation layer adjacent said at least one oxidant outlet for channeling oxidant flow from said at least one oxidant outlet.

~~(C0009)~~ 9. (Currently Amended) An oxidant distribution system in accordance with claim 8, wherein said system further comprises an oxidant exit port disposed within said second cavity.

~~(C0010)~~ 10. (Currently Amended) An oxidant distribution system in accordance with claim 9, wherein said second cavity is shaped such that a first portion of said second cavity adjacent said oxidant exit port substantially mates with said exit port and a second portion of said second cavity adjacent said oxidant outlet substantially mates with said oxidant outlet so as to channel oxidant flow from said fuel cell.

~~(C0011)~~ 11. (Currently Amended) An oxidant distribution system in accordance with claim 10, wherein the cross-sectional size of said first portion is greater than the cross-sectional size of said second portion thereby creating a reducer to remove supplied oxidant from said oxidant outlet of said fuel cell.

~~(C0012)~~ 12. (Currently Amended) An oxidant distribution system in accordance with claim 11, wherein an internal surface of said second cavity is roughened to enhance turbulent flow there through.

~~(C0013)~~ 13. (Currently Amended) An oxidant distribution system in accordance with claim 1, wherein said fuel cell is a high temperature fuel cell in which waste heat generated by said fuel cell has a temperature in a range between about 600°C to about 1300°C.

~~(C0014)~~ 14. (Currently Amended) An oxidant distribution system in accordance with claim 1, wherein said fuel cell is a solid oxide fuel cell.

~~(C0015)~~ 15. (Currently Amended) An oxidant distribution system for a fuel cell assembly comprising:

a fuel cell having an array of oxidant inlets and at least one oxidant outlet;

a housing surrounding said fuel cell; and

an insulation layer interposed between said housing and said fuel cell, said insulation layer defining an array of channels, wherein a respective channel within said array is matingly positioned adjacent to at least one respective inlet, and wherein said insulation layer is an oxidant distributor for channeling oxidant flow to said at least one respective inlet of said fuel cell.

~~(C0016)~~ 16. (Currently Amended) An oxidant distribution system in accordance with claim 15, wherein said system further comprises an oxidant supply feed in flow communication with said array of channels.

~~(C0017)~~ 17. (Currently Amended) An oxidant distribution system in accordance with claim 15, wherein said insulation layer comprises rigid refractory material.

~~(C0018)~~ 18. (Currently Amended) An oxidant distribution system in accordance with claim 17, wherein said rigid refractory material comprises a ceramic.

~~(C0019)~~ 19. (Currently Amended) An oxidant distribution system in accordance with claim 15, wherein said fuel cell is a high temperature fuel cell in which

waste heat generated by said fuel cell has a temperature in a range between about 600°C to about 1300°C.

~~(C0020)~~ 20. (Currently Amended) An oxidant distribution system in accordance with claim 15, wherein said fuel cell is a solid oxide fuel cell.

21-24. (Canceled)